

**From:** [Barbara Nann](#)  
**To:** [Rita Engblom](#)  
**Cc:** [Garyg Miller](#); [Marie Doty](#); [Peycke.Mark@epa.gov](mailto:Peycke.Mark@epa.gov); [Susan Webster](#)  
**Subject:** Re: Gulfco AM  
**Date:** 06/16/2010 01:33 PM  
**Attachments:** [UAO Removal Analysis.doc](#)

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Rita,

The site visit in on March 9, 2010 was that Gary's visit? If so, which statement of Gary's are we relying on as to the statement of the conditions of the tank? EPA will have to be more specific as to which tanks were viewed as corroded on this visit and more corroded then they have been in the past visits (if this is the visit we are relying on for the imminence) since not all tanks contain the contaminants identified in the Action Memo. The tank contents sampling was done in December 2006 which identified tanks by # and content. The tanks each contained a different materials. See attached analysis of tanks that was sent to HQ for discussion from last year. Some of the tanks contain liquid that appears as oily substance which the sample indicates benzene but it isn't clear if the benzene if from barge cleaning operations or from a form of oil that is exempted from CERCLA. We can talk more on Monday when I am back in the office on this.



UAO Removal Analysis.doc

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▼ [Re: Gulfco AM](#)

**Re: Gulfco AM** 

**Rita Engblom** to: Barbara Nann

06/16/2010  
01:06 PM

Cc: Garyg Miller, Marie Doty, Peycke.Mark, Susan Webster

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I am confused - y'all have been telling me this is going to be an AOC, that the RP wants to do the work...

**Comment 1:** "There is no statements in there regarding why this is an ISE."

See,

### **III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES**

#### **A. Threats to Public Health or Welfare**

Section 300.415 of the NCP lists the factors to be considered in determining the appropriateness of a removal action. Paragraphs (b)(2)(i), (ii), (iii), and (iv) directly apply to the conditions at the site. Any one of these factors may be sufficient to justify a removal action.

##### **1. Exposure to Human Populations, Animals or the Food Chain, NCP Section 300.415.(b)(2)(i)**

A number of CERCLA hazardous substances have been document at the site, at levels which fail TCLP, including benzene, chloroform and chlorinated hydrocarbons.

The predominant threat to human populations was the potential for exposure by direct contact with hazardous waste at the site, including but not limited to benzene; chloroform; 1,2dichloroethane; trichloroethylene; tetrachloroethylene; and vinyl chloride.

Potentially, a wide array of adverse human health effects could occur through the inhalation, ingestion, or dermal contact with chemicals onsite. Effects include minor to severe irritation of skin, mucous membrane, lung, and gastrointestinal tract; neurological effects; death from systemic effects and asphyxiation; blood effects; and cancer. Potential effects of some of the more toxic chemicals which are hazardous substances as defined at Section 101(14) of CERCLA, 42 U.S.C. § 9601(14), and further defined at 40 CFR § 302.4, are summarized below:

- a. Benzene – Benzene is a carcinogen. Systemic effects from exposure include irritation to mucous membranes, restlessness, convulsions, and depression.
- b. Chloroform – Chloroform can cause dizziness, fatigue, and headache. Inhalation or ingestion of high levels of chloroform over time may damage liver and kidneys.
- c. Trichloroethylene (TCE) - Breathing large amounts of trichloroethylene may cause impaired heart function, unconsciousness, and death. Breathing it for long periods may cause nerve, kidney, and liver damage.
- d. Tetrachloroethylene (perchloroethylene) – PCE may be a carcinogen. High concentrations can cause dizziness, headache, sleepiness, confusion, nausea, difficulty in speaking and walking, unconsciousness, and death.

e. Vinyl chloride – Vinyl chloride is a carcinogen. Breathing high levels of vinyl chloride can cause you to feel dizzy or sleepy. Breathing very high levels can cause you to pass out, and breathing extremely high levels can cause death.

2. Contamination of Drinking Water Supplies or Sensitive Ecosystems, NCP Section 300.415(b)(2)(ii)

The majority of the land surface slopes to the east with surface water draining to Drum Bay, Christmas Bay, Bastrop Bay, and Galveston Bay. The southern part of the site drains to the south and enters the Intercoastal Waterway. The site is within the 100-year coastal flood plain along the north bank of the Intercoastal Waterway between Oyster Creek to the east and the Old Brazos River Channel and the Dow Barge Canal to the west. Sensitive ecosystems, including wetlands receiving drainage from the site could be impacted by the toxic contaminants identified on-site.

3. Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release, Section 300.415 (b) (2) (iii)

An aboveground Storage tank farm located in the Southern portion of the site contains 14 tanks holding over 130,000 gallons of liquid and 100 cubic yards of sludge/sediment waste. The tanks contain water, various organic phases, oily sludges, and sand, rust solids, and debris. Lab analysis of the tanks documented: benzene; chloroform; 1,2dichloroethane; trichloroethylene; tetrachloroethylene; vinyl chloride; and petroleum hydrocarbons in various concentrations.

4. Weather Conditions That May Cause the Release or Migration of Hazardous Substances, NCP Section 300.415(b)(2)(v)

The area receives an average of 51 inches of rain annually. The contaminants are subject to migration by entrainment, windblown deposition and surface runoff. Located on the coast of Texas, the site is subject to tropical depressions and hurricanes. In 2008, the site received heavy rain and winds from Hurricane Ike.

B. Threats to the Environment

Areas of the site north of Marlin Avenue drain to the northeast into emergent, estuarine, persistent, irregularly flooded wetlands. These wetlands are directly adjacent to the upland area of the surface impoundments on the north, east, and west. The overland segment distance from the surface impoundment to wetlands contiguous to Oyster Creek is less than 10 feet. These wetlands extend approximately 0.48 miles to Oyster Creek. See Attachment 4.

According to the USFWS, Threatened and Endangered Species for Brazoria County include: bald eagle, brown pelican, green sea turtle, hawksbill sea turtle, Kemp's ridley sea turtle, leatherback sea turtle,

loggerhead sea turtle, piping plover, and whooping crane.

And;

#### **IV. ENDANGERMENT DETERMINATION**

Actual or threatened releases of hazardous substances from this site, if not addressed by implementing the response action selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, or welfare, or the environment.

**Comment 2:** "All of the information is at least 3 years old. Nothing that has been looked at in the last 6 months that indicate an ISE now but not 3 years ago."

See Page 3 Under Site Characteristics.

A site visit in on March 9, 2010 identified that corrosion of the tanks had resulted in complete penetration of the metal in some cases. The containment areas were approximately one-half full with water.

**Comment 3:** "There are 15 total. 4 of them empty. 4 contain hazardous substances. 7 contain other stuff."

Per past discussions with Gary and workplan I used 14. Do you want to use 15 now? How do you know 7 never contained hazardous materials? Why are you making an argument to just address 7 tanks - this is not what y'all said you wanted...

**Comment 4:** "The AM just has a general statement regarding removal of the tanks."

Its is not uncommon to be more detailed in an AOC and/or workplan than the Action Memo if needed. The Action Memo is not intended to be a Statement of Work.

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▼ Re: Gulfco AM

Re: Gulfco AM 

**Barbara Nann** to: Rita Engblom

06/16/2010  
12:42 PM

Cc: Garyg Miller, Marie Doty, Susan Webster, Peycke.Mark

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A couple of comments regarding the Action Memo(AM). There is no statements in there regarding why this is an ISE. All of the information is at least 3 years old. Nothing that has been looked at in the last 6 months that indicate an ISE now but not 3 years ago. In addition, I don't know if you looked at the contents of the tanks. There are 15 total. 4 of them empty. 4 contain hazardous substances. 7 contain other stuff. The AM just has a general statement regarding removal of the tanks. I don't know if we can justify that.

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▼ Gulfco AM

## **Gulfco AM**

**Rita Engblom** to: Marie Doty

06/16/2010  
11:43 AM

Cc: Garyg Miller, Barbara Nann, Susan Webster

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Please review and route for concurrence. Attachments will follow in a separate email.  
[attachment "GulfcoTanksAM.doc" deleted by Barbara Nann/R6/USEPA/US]

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